

RESIDUE.				ADDITIONAL OBSERVATIONS.
Per cent.	Siliceous Organisms.	Minerals.	Fine Washings.	
...	No trace of any kind came up in the tube to indicate the nature of the bottom. In the trawl were a piece of black volcanic ash and a portion of branching coral (<i>Gorgonia</i>); on the iron of the beam was a trace of calcareous volcanic mud.
11.36	(3.00 %), Sponge spicules, Lituolida, Diatoms.	(2.00 %), m. di. 0.10 mm., rounded; volcanic glass, felspar, magnetite, mica, hornblende, augite, palagonite, pumice.	(6.36 %), a small quantity of flocculent amorphous matter, mineral and siliceous remains.	All the minerals are of volcanic origin.
60.24	(1.00 %), one or two Diatoms.	(58.00 %), m. di. 0.40 mm., angular and rounded; olivine, felspar, augite, hornblende, magnetite.	(1.24 %), amorphous flocculent matter and a few mineral remains, a few fragments of Diatoms.	The white and red particles making up the sand are rounded, and measure about 1 mm. in diameter. The minerals consist almost exclusively of unaltered crystals of olivine, and some vitreous particles.
90.00	(1.00 %), Sponge spicules, one or two Diatoms.	(5.00 %), m. di. 0.08 mm., angular; magnetite, plagioclase, felspar, hornblende, augite, brown volcanic glass, pumice, palagonite.	(84.00 %), a considerable quantity of blue coloured amorphous matter and minute mineral particles.	The mud here described came up on the anchor. It is of a dark blue colour and contains several varieties of small Foraminifera and many small calcareous particles mixed up with debris of volcanic rocks and ashes, and coal from ships. The blue mud extends only as far as the reef, for just outside there is a pure Coral Sand. On treatment with acid a large quantity of sulphuretted hydrogen is liberated.
...	The tube came up quite empty, but on the outside, one foot above the valves, there was a slight trace of a reddish mud, containing many black and white mineral particles and many remains of siliceous organisms, including Diatoms. One piece of <i>Globigerina</i> was the only evidence of carbonate of lime.
95.00	(3.00 %), Sponge spicules and Diatoms.	(20.00 %), m. di. 0.10 mm., angular; magnetite, plagioclase, augite, olivine, glassy volcanic particles, palagonite.	(72.00 %), a considerable quantity of minute mineral fragments, some amorphous matter, and a few remains of siliceous organisms.	The mud is chiefly composed of volcanic debris.
100.00	(2.00 %), Radiolaria, Sponge spicules, <i>Haplophragmium latidorsatum</i> , Diatoms.	(70.00 %), m. di. 0.12 mm., angular; olivine, brown splinters of volcanic glass, plagioclase, augite, magnetite.	(28.00 %), many fine mineral particles, a small quantity of amorphous matter.	Only a small quantity of the deposit came up in the tube. This consisted chiefly of volcanic debris; some green crystalline particles had a coating of dull black.
100.00	(3.00 %), Radiolaria, Sponge spicules, <i>Haplophragmium latidorsatum</i> , <i>Trochammina trullissata</i> , Diatoms.	(50.00 %), m. di. 0.08 mm., angular; brown volcanic glass, plagioclase, magnetite, augite, hornblende, olivine, phillipsite.	(47.00 %), fine minerals, some amorphous matter, and some siliceous remains.	The deposit consists mainly of volcanic debris, much finer than at the previous station. There is also less olivine here than in the previous deposit.
100.00	(1.00 %), Sponge spicules, Radiolaria, Astrorhizidae, Lituolidae, Diatoms.	(1.00 %), m. di. 0.06 mm., angular; felspar, palagonite, magnetite, hornblende, augite, black mica, phillipsite.	(98.00 %), much fine amorphous matter, remains of minerals and siliceous organisms.	The valves of the sounding tube had not opened, and consequently it contained no deposit. The tube was coated on the outside for about two feet with Red Clay; this was scraped off and subjected to examination, but gave no indication of carbonate of lime. Palagonite was abundant. In the bag of the trawl were seven or eight small manganese nodules, and some small hardened pieces of the bottom, but no clay proper. Some pieces of the bottom had a slight coating of manganese, while others were perforated by worms, the tracks of which were, in some cases, coated with manganese. The manganese nodules were not of the usual rounded character but were very irregular. In addition to these there were small sharks' teeth and Cephalopod beaks.

Yokohama to Sandwich Islands—continued.

Sandwich Islands to Tahiti.